Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
The Use of N11 Codes and Other Abbreviated Dialing Arrangements	)	CC Docket No. 92-105
	)	

SECOND REPORT AND ORDER

Adopted: July 21, 2000 **Released: August 9, 2000**

By the Commission:

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I. INTRODUCTION

1. Over the past decade, a number of initiatives undertaken by both Congress and the Commission have enabled individuals with disabilities to better take advantage of the broad range of telecommunications services available today. For individuals with hearing and speech disabilities, these initiatives have meant being able to "stay connected," so that they may participate fully in the economic and social mainstream of American life, now shaped by the communications revolution and information age. In this *N11 Second Report and Order*, we take another significant step toward fulfilling the goals of Title IV of the Americans with Disabilities Act of 1990 (ADA)[1] by requiring the nationwide implementation of access to telecommunications relay services (TRS) for persons with hearing and speech disabilities via the abbreviated dialing code 711.[2]

2. The Commission first promulgated rules to implement section 225 in 1991,[3] and telecommunications relay services (TRS) became available on a uniform, nationwide basis

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1 Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69 (1990) (adding section 225 to the Communications Act of 1934, as ammended, 47 U.S.C. § 225).

2 TRS allows people with hearing or speech disabilities to communicate by telephone with persons who may or may not have such disabilities. This is accomplished through TRS facilities that are equipped with special technology and staffed by communications assistants (CAs) who relay conversations between persons using either text or voice telecommunications devices. To access TRS, a text telephone ("TTY") user dials the telephone number of the local TRS center. For the TTY user, this first step - the inbound call to the TRS center - is functionally equivalent to receiving a "dial tone." The caller then gives the number of the party he or she desires to call to the CA. The CA in turn places an outbound voice call to the called party. The CA serves as the "link" in the conversation, converting all TTY messages from the caller into voice messages, and all voice messages from the called party into typed messages for the TTY user. The process is performed in reverse when a voice telephone user initiates the call. *See* 47 C.F.R. §§ 64.601 (5), (7).

3 *Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, CC Docket No. 90-571, Report and Order and Request for Comments, 6 FCC Rcd 4657 (1991) (*TRS First Report and Order*).

pursuant to those requirements in July 1993.[4] On February 19, 1997, the Commission reserved for future implementation an abbreviated dialing code, 711, for more convenient and consistent access to TRS.[5] In February 2000, we adopted comprehensive changes to our rules in order to increase the types and quality of relay service available.[6] Among other requirements, the new rules mandate Speech-To-Speech (STS) relay service,[7] which allows individuals with speech disabilities to communicate through CAs specially trained to understand difficult speech patterns, establish a minimum typing speed for CAs,[8] and streamline the consumer complaint process.[9]

3. In today's action, we adopt rules that will further advance the functional equivalency mandate of section 225 by making it easier for consumers to access and use the relay services contemplated in our *Improved TRS Order*.[10] Pursuant to the *N11 Further Notice* that initiated this proceeding, we require all telecommunications carriers to implement three-digit, 711, dialing for access to all relay services.[11] This new dialing arrangement will supplement existing systems in most states that require 7 or 10-digit numbers in order to initiate relay calls.[12]

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4 Under section 225, common carriers providing telephone voice transmission services were required to begin providing TRS, throughout the areas they served, as of July 26, 1993. *See* 47 U.S.C. § 225(c). Prior to this time, some states offered relay services, but the services offered differed from state to state, and were subject to many limitations. *See* STRAUSS, TITLE IV – TELECOMMUNICATIONS, IMPLEMENTING THE AMERICANS WITH DISABILITIES ACT at 156-158 (Gostin & Beyer ed. 1993).

5 *The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, First Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 5572 (1997) (*N11 First Report and Order and FNPRM*) (sometimes referred to herein as the *N11 Further Notice*).

6 *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Report and Order and Further Notice of Proposed Rulemaking, FCC 00-56 (rel. Mar. 6, 2000) (*Improved TRS Order*) (sometimes referred to as *Improved TRS FNPRM*).

7 *Id.*, FCC 00-56 at para. 17.

8 *Id.*, FCC 00-56 at para. 74.

9 *Id.*, FCC 00-56 at para. 117-119. The Order also allows reimbursement for video relay services, which enables individuals who use sign language to communicate through sign language interpreters hooked up through a video link. *Id.* at para. 24.

10 47 U.S.C. § 225(a)(3).

11 *N11 Further Notice*, 12 FCC Rcd at 5610-11, paras. 67-68.

12 Many states currently have two or more TRS access numbers (usually toll-free numbers) for reaching voice, TTY (baudot and ASCII), voice carry over [VCO], hearing carry over [HCO], STS, and other types of relay services. Voice carryover permits individuals who are deaf or hard of hearing, but who can use their voices, to talk directly to the other party participating in the relayed telephone conversation. The CA then types the hearing party's message back in text. Hearing carryover permits relay callers who can hear, but who have no speech, to use CAS to type what they want to say. The relay caller hears directly from the other party to the relayed conversation. Baudot and ASCII are two formats used for TTY transmissions. Baudot, invented around the time of the telephone itself, uses a half-duplex mode of operation, requiring the receiving party of a message to wait until the completion of the (continued....)

TRS users will then be able to initiate a call from any telephone, anywhere in the United States, without having to remember and dial a 7 or 10-digit toll free number, and without having to obtain different numbers to access local TRS providers when traveling from state to state.[13] Currently, obtaining an appropriate TRS number is a problem for TRS users for several reasons. First, directory assistance is a voice call, which callers with hearing and speech disabilities are not always able to use. Additionally, even TRS users who are able to access directory assistance report that directory assistance operators are often unfamiliar with relay services or have difficulty finding TRS numbers. Similarly, TRS users typically can not rely on finding TRS access numbers in phone directories. Payphones frequently do not supply directories and even if they do, variation in the location of TRS numbers in each state's directory makes it difficult for users to locate the local numbers in that manner.

4. 711 dialing will encourage and facilitate communication among individuals who are deaf, hard of hearing, or have speech disabilities and voice users. Besides providing easier communication for millions of Americans with disabilities,[14] we expect the new rules to spur greater demand for quality relay service by text and voice users.[15] It is our hope that the increase in demand will encourage the market entry of new TRS competitors, thereby increasing innovation, lowering prices, and enhancing the quality of relay services.

(Continued from previous page)
message before responding. ACSII, which stands for American Standard Code for Information Interchange, permits simultaneous communications, can transmit messages at a speed hundreds of times faster than Baudot, and allows for direct communication with computers. Strauss and Richardson, "Breaking Down the Telephone Barrier - Relay Services on the Line," 64 Temple Law Review 583, 585 (1991), *see* 47 C.F.R. § 64.601 for definitions for the various types services. *See also Improved TRS Order*, FCC 00-56 at para. 14. As discussed *infra*, several states have already implemented 711 dialing for access to TRS.

13 According to Federal Communications Commission records, there are about 95 TRS numbers nationwide <<http://www.fcc.gov/cib/dro/trsphonebk.html>> (last updated June 27, 2000).

14 In adopting comprehensive changes to our rules, we emphasized the critical importance of TRS given the vital role that telecommunications services play in a person's ability to participate in this information age. *Improved TRS Order* at para. 5, note 10. Without access to TRS, a significant number of Americans might not be able to make or receive telephone calls from others. In its comments, NAD estimates that more than 28 million are deaf or have a hearing disability, and the National Center for Health Statistics estimates that more than 2.7 million people have a speech disability. NAD Comments at 1; "Prevalence of selected chronic conditions: United States, 1990-1992." National Center for Health Statistics (NCHS). Vital Health Stat 10(194), 1997.

15 Ex Parte Comments of Gilbert Becker, Director, Telecommunications Access of Maryland, Maryland Relay, CC Docket No. 92-105, at 2-3 (filed June 7, 2000) (Maryland Relay June 7, 2000 *Ex Parte*).

II. BACKGROUND

5. Our decision to mandate 711 dialing for access to TRS nationwide has its roots in a rulemaking proceeding that the Commission initiated in the *N11 NPRM*, on May 6, 1992, which considered rules requiring carriers to support N11 codes and other abbreviated dialing arrangements.[16] N11 codes that are not reserved by the Commission may generally be used by states or carriers at their discretion, until the Commission reserves them, at which time they must no longer be used for inconsistent purposes. Following release of the *N11 NPRM*, several parties petitioned the Commission to designate such codes for a variety of applications.[17] One such petition (Relay Petition), filed jointly by the National Center for Law & Deafness and Telecommunications for the Deaf, Inc., requested that the Commission assign the 711 code for access to TRS.[18] The petition also requested a second unspecified N11 number for access to TRS by voice telephone users.[19] The Bureau invited public comment on the petition and received numerous comments and reply comments.[20]

6. On July 26, 1993, after release of the *N11 NPRM*, GTE Hawaiian Telephone became the first local exchange carrier in the nation to voluntarily offer abbreviated dialing for TRS by establishing 711 access to TRS for text users and 511 for voice users in the state of Hawaii.[21] The following year, Canada implemented a similar dialing arrangement, establishing a

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16 *See The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, CC Docket No. 92-105, Notice of Proposed Rulemaking, 7 FCC Rcd 3004 (1992) (*N11 NPRM*). Abbreviated dialing arrangements are telephone numbers, which have fewer than the standard 7 or 10-digits. Among abbreviated dialing arrangements, "N11 codes" are 3-digit telephone numbers of which the first digit may be any digit other than 0 or 1, and the last two digits are both 1. *Id.*, 7 FCC Rcd at 3004, para. 5.

17 *See, e.g.*, Petition by the U.S. Department of Transportation for Assignment of an Abbreviated Dialing Code for (March 8, 1999); Petition for Assignment of 211 Dialing Code for Use by the Public to Access Essential Public Resources (May 28, 1998). Petition for Declaratory Ruling of the General Services Administration (March 11, 1994) (for a three-digit N11 code to gain access to all Federal Government agencies); the National Association of State Telecommunications Directors (NASTD) requested a three-digit abbreviated dialing code for access to state government, NASTD *Ex Parte* Presentation, CC Docket No. 92-107 (filed Sept. 22, 1993).

18 *See* National Center for Law and Deafness and Telecommunications for the Deaf, Inc. (Relay Petition), filed Oct. 1993.

19 *Id.*

20 *Commission Requests Comment on Petition for Assignment of N11 Codes to Facilitate Access to Telecommunications Relay Service*, CC Docket 92-105, Public Notice, 8 FCC Rcd 7587 (1993), clarified, 8 FCC Rcd 8391 (1993).

21 GTE Comments at 3 (explaining that GTE utilized the prefix 1 before 711 and 511 to eliminate any difficulties with electromechanical or other end office switchews that would have required additional hardware and/or software to directly route an N11 code).

711 number for text access to its relay services and a ten-digit, toll-free number for access by voice users.[22] In addition, several state utility commissions opened proceedings on the assignment of N11 codes for various purposes, and some reserved the 711 and 511 codes for relay services or other public interest purposes pending a final decision by the Commission on N11 assignments.[23]

7. On February 19, 1997, the Commission issued the *N11 First Report and Order and Further Notice* in CC Docket No. 92-105.[24] Among other things, it granted the Relay Petition in part by directing Bellcore, the North American Numbering Plan (NANP) administrator at that time, to assign 711 for nationwide access to TRS.[25] The Commission concluded that N11 dialing would facilitate improved access to TRS in furtherance of section 225 and other provisions of the Communications Act.[26] In the accompanying *Further Notice of Proposed Rulemaking* (*N11 Further Notice*), the Commission solicited comments on whether nationwide 711 implementation was technically and economically feasible, whether the 711 number should access all types of relay service, and whether implementation could occur within

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22 On January 27, 1993, the Canadian Radio-television and Telecommunications Commission (CRTC) announced its decision to reserve 711 and 511 for "message relay services" in Canada. CRTC directed the major phone companies to file a plan of implementation by July 1993. *See Canadian Association of the Deaf Successful in Fight for 7-1-1 MRS!*, Press Release (dated Jan. 27, 1993). To meet this directive, the phone companies sought advice from the Canadian Steering Committee on Numbering. This committee reached a consensus to designate 711 for TTY access, a new national 1-800 number for voice access, and to reserve an additional N11 number for potential future use in Canada for voice access, subject to its adoption as the North American standard. Letter from Canadian Association of the Deaf to National Association of the Deaf and National Center for Law and the Deaf, (dated June 22, 1993). CRTC accepted this proposal on August 4, 1993. Letter from CRTC, to Mr. Al Lewis, Chairman, Canadian Steering Committee on Numbering (dated Aug. 4, 1993). On August 16, 1993, Bell Canada announced that the new numbers would be implemented in more than 90% of the local exchanges, and that the rest would be converted as analog exchanges were upgraded to digital technology. Canada Newswire (dated Feb. 11, 1994). On February 14, 1994, Bell Canada, and other carriers in the Stentor Alliance began making 711 available for TTY acccess.

23 For example, in October of 1993, Tennessee reserved 711 for intrastate TRS for a one year period. *In Re: Investigation of N11 Allocations*, Interim Order, Docket 92-13892 (Oct. 20, 1993). Similarly, in February of 1994, the North Carolina Utilities Commission rejected all requests for assignment of N11 codes for commercial information services, *In the Matter of Assignment of N11 Dialing Codes*, Order Denying N11 Assignment (Feb. 18, 1994), and in March of 1995, the Public Service Commission of Nevada decided to defer action on the assignment of N11 codes pending resolution of the Federal Communications Commission docket on N11 codes. *In re Investigation of the issues surrounding the assignment of N11 codes*, Order (March 3, 1995).

24 *See N11 First Report and Order*, 12 FCC Rcd 5572.

25 *Id.*, 12 FCC Rcd at 5607, para. 56. Because N11 codes are a scarce resource, and because many states already provide for both TTY and voice users through a single number, the Commission declined to adopt a proposal by NCLD/TDI and others to set aside a second N11 code for TRS access. *Id.*

26 *Id.*, 12 FCC Rcd at 5606, para. 55.

three years from the date of the *N11 Further Notice*.[27]

8. In July 1998, Bell Atlantic, an incumbent local exchange carrier (LEC), voluntarily announced plans to become the first telephone company in the continental United States to provide 711 access to TRS throughout its multi-state service region.[28] On February 8, 1999, through the combined efforts of Bell Atlantic and Maryland Relay, Maryland became the first state in the Bell Atlantic region to offer 711 access to TRS.[29] Using Advanced Intelligent Network (AIN) technology,[30] Maryland supports all common types of relay services via 711 dialing, including voice and text (Baudot and ASCII), voice carry over (VCO), hearing carry over (HCO), and speech to speech (STS).

9. On September 8, 1999, the Commission held a public forum (*711 Forum*) on 711 implementation in order to supplement and update the record with input from consumers, state relay administrators, and industry representatives.[31] Discussions at the *711 Forum* addressed a host of issues, including technical feasibility, projected costs, cost recovery mechanisms, public education, and implementation timetables. *711 Forum* participants also discussed features of the 711 platform implemented by Bell Atlantic and Maryland relay officials.[32] In the weeks following the *711 Forum*, the Commission received several *ex parte* filings addressing issues raised at the forum.[33]

10. In this *N11 Second Report and Order*, we complete the work we began when we

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27 *N11 FNPRM*, 12 FCC Rcd at 5610-5611, at paras.67-68.

28 Letter from Marie T. Breslin, Directory, Federal Regulatory, Bell Atlantic, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 92-105 Attach. at p.1 (filed Aug. 3, 1999) (Bell Atlantic Aug. 3, 1999 *Ex Parte*).

29 In March 2000, Massachusetts joined Maryland and Hawaii in offering 711 dialing for relay service. *See* Letter from Rita Beier, VISTA, to Karen Peltz Strauss, Deputy Chief, Consumer Information Bureau, Federal Communications Commission, CC Docket No. 98-67, at 1 (filed June 5, 2000) (VISTA June 5, 2000 *Ex Parte*). Bell Atlantic also recently announced that it anticipates that it will implement 711 dialing in all of its in-region state by the end of 2000. Letter from Richard Ellis, Bell Atlantic, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket 92-105, at Attach. B (filed June 5, 2000) (Bell Atlantic June 5, 2000 *Ex Parte*). In addition to Hawaii and the Bell Atlantic states, Nevada implemented 711 access for TRS in April, 2000. *Nevada Leads the Way in Telephone Services for the Disabled* Press Release (Office of Governor Kenny Guinn) April 14, 2000 (Nevada Press Release).

30 *See infra* para. 20, for explanation of AIN technology.

31 *See Public Forum on 711 Access to Telecommunications Relay* Services, CC Docket No. 92-105, (Sept. 8, 1999) (*711 Forum*). *See Revised Public Notice on FCC Convenes a Public Forum on 711 Access to Telecommunications Relay Services*, Public Notice, CC Docket No. 92-105, DA 99-1170 (rel. June 16, 1999)(*711 Forum Notice*).

32 *See 711 Forum*, Transcript at 15-18, 36-41 and 60-64.

33 See Appendix C for list of parties filing *ex parte* statements.

allocated 711 for TRS in 1997, by requiring a nationwide roll-out of 711 access to TRS and establishing an implementation framework for this abbreviated dialing for access to TRS.

III. DISCUSSION

A. Nationwide 711 Access to TRS

1. Desirability of Mandating 711 Access to TRS

a. Background

11. Section 225 of the Communications Act directs the Commission to ensure that telecommunications relay services (TRS) are available, to the extent possible and in the most efficient manner, to individuals with hearing and speech disabilities in the United States.[34] The provision further requires that TRS facilitate the ability of individuals with hearing or speech disabilities to communicate over the telecommunications network in a manner that is "functionally equivalent" to the ability of individuals who do not have such disabilities.[35] A fundamental purpose of section 225 is to remove communication barriers within the nation's telecommunications network that have deprived individuals with hearing and speech disabilities of meaningful opportunities to participate in the "economic and social mainstream of American life."[36]

12. As stated above, in the *N11 First Report and Order*, the Commission concluded that 711 dialing would facilitate improved access to TRS in furtherance of section 225 and other provisions of the Act by considerably reducing the number of digits required to place a relay call, and by eliminating the need for consumers to remember or obtain multiple relay access numbers when traveling from state to state.[37] Although N11 codes are a scarce resource, given the many benefits of a nationwide N11 code for TRS access, the Commission found that the NANP administrator should assign 711 for such use.[38] The record compiled in this matter is substantial, and reflects the views of TRS users, common carriers, relay providers, and state relay administrators.[39] It describes voluntary, cooperative efforts by industry and several states to

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34 47 U.S.C. § 225(b)(1).

35 47 U.S.C. § 225(a)(3).

36 *Id.*

37 *N11 First Report and Order*, 12 FCC Rcd at 5606, para. 55.

38 *Id.*, 12 FCC Rcd at 5607, para. 56.

39 A list of commenters as well as parties participating in the public forum or filing *ex parte* statements is attached to this *N11 Second Report and Order* as Appendix C.

implement 711 access to TRS after the *N11 Further Notice*.[40] The record also shows the benefits that 711 access has brought to people with disabilities and the general public in states where 711 has been implemented.[41]

b. Discussion

13. By eliminating the difficulties that individuals have with finding or remembering various relay numbers as they travel from state to state, and by reducing the number of digits needed for accessing relay services, nationwide implementation of 711 access to TRS will make relay access convenient, fast, and uncomplicated. As a result, it will improve access to TRS, and encourage use of TRS not only by people with hearing and speech disabilities, but also by individuals without disabilities. It appears that these and other benefits are being realized in other states within Bell Atlantic's service region, as well as in Nevada, which implemented 711 dialing in April 2000.[42] According to Maryland relay officials, there has been a significant increase in the use of relay service by persons with hearing or speech disabilities within the state of Maryland following 711 implementation.[43] Maryland also has reported that voice-initiated calls to its TRS center were up an average of 20% in the seven-month period following 711 activation, and that overall volume was up 10% in the same period.[44] In Massachusetts, although the relay provider believes that it is too early to judge whether overall call volume has increased since 711 was rolled out, consumers with disabilities report that there is a significant increase in the number of return calls by hearing persons who find 711 much easier to remember and use than a 10-digit number. This has proven to be a major benefit of 711 access to TRS.[45]

14. Given the present state of technology and demonstrated success by a number of carriers in various states, we conclude that requiring all carriers, nationwide, to implement 711 access to TRS will fulfill the primary objective of section 225 and our TRS rules: functionally equivalent use of the telephone system by people with hearing or speech disabilities.[46] A

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40 *See* GTE Comments at 2; *711 Forum*, Transcript at 15-18. *See also* Bell Atlantic June 5, 2000 *Ex Parte* at 1-3.

41 *See, e.g. 711 Forum*, Transcript; Letter from Gilbert Becker, Maryland Relay, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket 92-105 at 1-3 (filed April 3, 2000) (Maryland Relay April 3, 2000 *Ex Parte*).

42 Bell Atlantic June 5, 2000 *Ex Parte*; Nevada Press Release at 1.

43 Letter from Gilbert Becker, Director, Maryland Relay, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 92-105, at 1 (filed July 11, 2000) (Maryland Relay July 11, 2000 *Ex Parte*).

44 *711 Forum*, Transcript at 63-64.

45 Maryland Relay April 3, 2000 *Ex Parte* at 2.

46 47 U.S.C. § 225.

uniform, nationwide 711 deployment for TRS will also facilitate consumer access to all relay services mandated under our rules. TRS users traveling from state to state will be assured easy access to the particular service they need without having to obtain, remember and dial multiple seven-to ten-digit numbers. 711 access also will facilitate callbacks from voice users who may be unfamiliar with relay services and be frustrated when having to place a TRS call.[47] We conclude, therefore, that mandating nationwide implementation of 711 access to TRS supports the goals of the Americans with Disabilities Act by increasing the integration of people with disabilities into society, and is in the public interest.[48]

2. Technical Feasibility of Implementing 711 Access to TRS

a. Background

15. In the *N11 Further Notice* and at the *711 Forum*, we requested comment on the technical details of implementing 711 access to TRS, and whether such implementation could be accomplished in three years or less.[49] In particular, we asked commenters to provide additional information about two types of network architecture that could be used to implement this three-digit dialing arrangement: AIN and switch-based technology. Commenters raised three types of technical concerns: first, whether carriers could implement 711 access using either of the two possible network architectures; second, whether the deployed technology would permit 711 callers to access all types of relay service; and third, whether the deployed technology would permit competition in the provision of relay services.

16. Although some parties had expressed skepticism about the technical feasibility of 711 access in comments responding to the *N11 Further Notice*[50] those concerns were no longer as apparent two years later at the *711 Forum*.[51] On the contrary, based on representations at the *711 Forum*, there is now broad consensus among industry representatives, telecommunications carriers, relay providers, and state relay administrators that 711 access is both technically and economically feasible.[52]

b. Discussion

17. We conclude that it is technically feasible to provide 711 access to TRS using either AIN or switch-based technology. We are satisfied that both switch-based and AIN

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47 Maryland Relay April 3, 2000 *Ex Parte* at 2.

48 42 U.S.C. § 12101, *et. seq.*

49 *N11 Further Notice*, 12 FCC Rcd at 5610-5611, para. 68.

50 *See, e.g.*, AT&T Comments at 1-2; BellSouth Comments at 2-3.

51 *See generally 711 Forum* Transcript.

52 *Id.*

technologies will deliver 711 access to TRS at acceptable quality levels and comport with mandatory minimum service quality requirements under the Act and our rules. Therefore, as discussed below, we require that carriers implement 711 access to TRS within the time frame specified herein, but do not mandate any particular technology for its deployment.

18. Deployment of 711 Using Switch-Based Technology. Switch-based networks process telephone calls by using deterministic switching, which routes the call along a pre-determined or set path.[53] Under the switch-based arrangement, a subscriber would dial 711, which would trigger a database query in the local switch. The query response would cause the originating switch to re-dial a toll-free number, and the call would be delivered to the TRS center as if it were any other toll-free call recipient. Switch-based N11 deployment means that the N11 dialing information is stored in the switch so that the end office translates the dialing of 711 to a toll-free number and the call is routed to the TRS center. Switch-based deployment would simply direct all 711 calls from every switch in the state to a single TRS provider (presumably the state-selected provider). In such a configuration, when a TRS user dials the 711 code, the telecommunications carrier's end-office switch would automatically route the call to the state-selected relay center.

19. We find strong evidence of the technical feasibility of switch-based 711 implementation in the experience of GTE in Hawaii. This state was the first to implement 711 access to TRS, in 1993, using a switch-based architecture.[54] GTE states that standard switching protocols easily convert the 711 code into a toll free call to the relay center.[55] The company estimates that about 1.5 hours of work is needed to update each local switch.[56] We expect that many small LECs without AIN technology will use a switch-based approach to achieve compliance with the requirements of this Order, and will reasonably be able to do so within the implementation period set forth *infra*.[57]

20. Deployment of 711 Using AIN Technology. "AIN" is a term promulgated by Bellcore and adopted by the Bell Operating Companies denoting network architecture that allows voice switches to contact external databases for call processing information.[58] It involves an

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53 *See generally* A. DODD, THE ESSENTIAL GUIDE TO TELECOMMUNICATIONS, 109 (1998). *See also* H. Newton, NEWTON'S TELCOM DICTIONARY, at 687 (14th ed. 1998) (Newton), for a definition of switch-based technology.

54 GTE Comments at 2.

55 Letter from Gordon Maxson, GTE, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 98-67 at 1 (filed June 23, 2000) (GTE June 23, 2000 *Ex Parte*).

56 *Id.*

57 We acknowledge that some independent LECs' switches may not have the capability to convert an N11 code to a 10 digit number. Georgia Public Service Commission Reply Comments at 7; Bell Atlantic June 5, 2000 *Ex Parte* at Attach., A.

58 *See* Newton at pp.42-43.

additional layer of intelligence that rides on top of the network and allows carriers to make changes to services very economically and efficiently.[59] AIN technologies deployed by carriers have two consistent characteristics. First, the network can alter the routing of calls from moment to moment based on criteria other than the traditional method of simply finding a path through the network for the call.[60] Second, the originator or ultimate receiver of the call can inject intelligence into the network that affects the flow of the call (either outbound or inbound).[61] An AIN network possesses the ability to route calls on an individual or call by call basis and find the most efficient path to route and complete the call instead of the pre-programmed route associated with switch-based network architectures. An AIN implementation of 711 access to TRS would intelligently route 711 calls to the appropriate relay center from any calling point on the network.

21. We find that the deployment of 711 access in several states served by Bell Atlantic based on AIN technology and its plans to deploy such access throughout its 13-state region provides strong evidence of the technical feasibility for implementing 711 access through AIN technology.[62] In July 1998, Bell Atlantic began work to implement 711 dialing in Maryland,[63] and succeeded in doing so by February 1999.[64] According to Bell Atlantic, this was accomplished through typical system upgrade procedures, and the costs were well within the range of other routine network upgrades and changes.[65] Bell Atlantic has since worked cooperatively with TRS providers and state relay administrators in several more states, and anticipates 711 access in nearly its entire service region by the end of this year.[66] We commend GTE and Bell Atlantic for their pioneering efforts to provide access to TRS centers through the abbreviated dialing code, 711. We are persuaded by the experiences of these carriers and others that there are no significant issues of technical feasibility related to 711 deployment.[67] Voluntary efforts by carriers in states around the country demonstrate that implementation is economically viable and technologically feasible. Carriers in Nevada, for example, have been providing 711 access to TRS since April 2000, after relay officials requested their voluntary cooperation only

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59 *Id.*

60 *Id.*

61 *Id.*

62 *See 711 Forum*, Transcript at 17-18. *See also* Bell Atlantic June 5, 2000 *Ex Parte* at Attach. B.

63 Maryland Relay June 7, 2000 *Ex Parte.*

64 Bell Atlantic June 5, 2000 *Ex Parte* at Attach. B.

65 *Id.* Attach., A at 2.

66 *Id.* at Attach., B.

67 *See* GTE Comments at 2; Bell Atlantic June 5, 2000 *Ex Parte* Attach., A at 2.

four months earlier.[68]

22. Permitting carriers to select the most economical and efficient means of implementing 711 access, based on their network architecture, will allow maximum flexibility for carriers and state relay administrators in developing 711 platforms, and will promote innovative system designs. Accordingly, in this Order we do not require any particular technology for implementing 711 access to TRS. Moreover, we do not mandate the steps that carriers and relay providers must take to prepare their networks for 711 access. They are free to choose solutions that avoid or minimize any operational concerns. The voluntary, cooperative efforts between Bell Atlantic and relay administrators to implement 711 access within its region attest to the soundness of this policy. The goal of nationwide access to TRS can be met with minimal regulation or Commission intervention.

23. We note that wireless carriers, like wireline and payphone providers, will implement 711 access to TRS using either switch-based or AIN technology. Wireless carriers also deploy switches that can be modified to translate 711 to any seven or ten-digit number.[69] While wireless carriers may face unique problems with routing 711 calls as discussed *infra*,[70] these issues do not affect the ability of wireless carriers to meet the 711 obligations set out in this Order.

24. Based on the foregoing discussion, we conclude that implementation of uniform, nationwide 711 access to TRS using either AIN or switch-based technology is technically feasible and serves the public interest. Accordingly, we require all carriers to provide 711 access to TRS within the implementation period established herein. We emphasize, however, that whatever network designs are ultimately deployed, 711 dialing must be implemented in a way that ensures compliance with our mandatory minimum service quality standards for TRS.

B. Implementation Requirements

1. Access to All Relay Services and Compliance with Mandatory Minimum Service Quality Standards

a. Background

25. In the *N11 Further Notice*, we requested comment on several issues regarding the implementation of 711 access to TRS, including whether users should be able to access all relay services, whether the implementation of 711 access to TRS would affect compliance with our mandatory minimum service quality standards, and the time frame necessary for carriers to

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68 *See* Nevada Press Release at 1.

69 *See* Letter from Dustun L. Ashton, CTIA, to Magalie Roman Salas, Secretary, Federal Communications Commission, Attach., at 1 (filed July 5, 2000) (CTIA July 5, 2000 *Ex Parte*) (stating that wireless carriers can translate 711 to any seven or ten digit number).

70 *See infra* paras. 34-38.

implement 711 access to TRS.[71] In general, relay centers answer a single access number used for multiple services in one of two ways: 1) a live operator checks for voice and then text, or 2) an automated menu prompts for voice and then tests for a TTY or ASCII connection. At some relay centers, "caller profiles" store the relay type and other user preferences, which are automatically activated when the system recognizes the user's phone number via automatic number identification (ANI).

b. Discussion

26. We conclude that carriers are able to implement 711 dialing in a way that gives users access to all mandated relay services, and believe it is imperative for all carriers to do so. We are mindful of the concerns raised by some industry representatives about the practicality of providing 711 access to all required relay services. For example, one concern is that, because many states currently rely on unique call-in numbers for each relay service, a 711 system for all services would increase call-processing time, making it difficult to meet the speed-of-answer requirement.[72] We are not, however, persuaded by arguments that the potential for an increase in the answer time requires the Commission to limit the types of relay services that can be accessed via 711. Instead, the rules we adopt in this *Second N11 Report and Order* are designed to give state relay administrators and carriers wide latitude in configuring their 711 platforms. For instance, we do not see the need to require an automated, interactive menu of available relay services, or any particular processing order. Bell Atlantic's experience in implementing 711 access to TRS demonstrates that carriers can provide access to all forms of TRS without compromising their ability to answer calls within the required period of time.[73]

27. We emphasize that our decision requiring the implementation of 711 access to TRS does not alter the mandatory minimum service quality standards for TRS. These standards, including the speed of answer time, are still required under our rules. Even without caller profiling, Maryland relay has reported that implementation of 711 access has not negatively affected speed of answer because this is calculated by the length of time it takes a live operator initially to answer a TRS call.[74] We conclude that speed of answer is not a problem for 711 access, and that carriers and relay providers should be able to provide such access while still meeting all mandatory minimum service quality standards for TRS.

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71 *See supra* n.26.

72 Letter from Larry Fenster, MCI WorldCom, to Magalie Roman Salas, Secretary, Federal Communications Commission, at 5 (filed July 30, 1999) (MCI WorldCom July 30, 1999 *Ex Parte*).

73 *See* Maryland Relay April 3, 2000 *Ex Parte* at 3.

74 Maryland Relay June 7, 2000 *Ex Parte* at 3. For example, Maryland Relay states that Maryland's thirty second requirement provides enough time for communications assistants to connect TRS users to the numbers requested, even though the system sequentially checks for the type of relay service desired by the user rather than using caller profiling. *Id.* (stating that Maryland has been able to maintain an average speed of answer of 3.0 seconds or less).

28. We encourage the continuation of alternate, direct access numbers to reach particular types of relay services. This will enable frequent users of specific services, such as text-based TRS, voice carryover, and speech-to-speech relay to maximize call-processing efficiency. We also encourage relay providers to use caller profiling with 711 access. Caller profiling allows users to designate their preferred type of relay service. This, in turn, speeds call processing by enabling TRS centers to answer calls using the appropriate mode of communication. Although we do not mandate use of either caller profiles or alternate, direct access numbers to particular relay services, these features may provide a means of handling relay calls in a manner that is consistent with our mandatory minimum standards.

2. Implementation Schedule

a. Background

29. After determining that nationwide 711 access to TRS is in the public interest and technically feasible to accomplish, we now determine an appropriate timeframe for the implementation of 711 access. In 1997, responses to our *N11 Further Notice* brought differing responses from industry and consumer advocates regarding the amount of time that would be required to implement such access, with estimates ranging from one year or less to three years or more.[75] For example, certain parties had expressed concern with a one-year implementation deadline by arguing that there may be significant technological problems and costs associated with switch-based connections to multiple TRS providers through a single N11 access code.[76] Other commenters argued that a 711 platform using AIN-based technology would add significant costs and network modifications that would consume resources and ultimately delay 711 implementation beyond the proposed three-year period.[77] However, most participants at the *711 Forum* held in September 1999 no longer contended that there were significant technical, economic or operational impediments to deploying 711 dialing using either AIN or switched-based technologies.[78] Information recently submitted to the Commission also reveals that the amount of time required to implement 711 access to TRS is significantly shorter than previously envisioned.[79] Bell Atlantic estimates that 711 access could generally be implemented within six

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75 *See* NAD Comments at 4 (estimating implementation would be feasible within one year); BellSouth Comments at 2-3 (estimating implementation would require at least three years).

76 *See* Ameritech Comments at 2-3; Bell Atlantic and Nynex Comments at 2; BellSouth Comments at 4-5, 6.

77 BellSouth Comments at 4.

78 *See generally 711 Forum*, Transcript. *See also* U S WEST Comments at 3 (stating that, "Nationwide access to a preselected TRS provider is technically feasible, using either a switch-based or AIN-based solution. Deploying switch-based 711 dialing to TRS centers would be feasible in virtually all switches today.").

79 *See, e.g.* Bell Atlantic June 12, 2000 *Ex Parte* Attach. at 1.

months using either switch-based or AIN technologies.[80]

b. Discussion

30. We conclude that the experience of carriers that have already implemented 711 TRS access provides us with a reasonable and persuasive basis for requiring implementation within a one-year period. We find that, based on the record in this proceeding, it is feasible for all telecommunications carriers, including wireline, wireless, and payphone providers, to implement 711 access to TRS in accordance with Commission standards within one year, regardless of whether the carrier deploys switch-based or AIN-based technology. Based upon actual implementation schedules, we are persuaded that carriers can implement 711 access to TRS in a rapid and equitable manner that balances the needs of carriers, relay providers, states, and consumers.[81]

31. Bell Atlantic's efforts to implement 711 access throughout its operating region provides compelling evidence that carriers utilizing an AIN platform are able to implement 711 access within one year.[82] Given Bell Atlantic's extensive experience in deploying 711 access in several states, and its plans to implement 711 access throughout its operating region, we accord significant weight to its representation that once the initial design and laboratory testing of the platform and required software are completed for 711 access in any jurisdiction, the administrative and translation work associated with providing such access requires approximately two to three months.[83] Bell Atlantic's assertions are further supported not only by evidence of its own experience, but also by the implementation of 711 dialing within a four-month period in the state of Nevada.[84] We also conclude that carriers deploying switch-based technology can reasonably implement 711 access to TRS within one year. We base our conclusion on the experience of states such as Hawaii, where GTE deployed 711 access to TRS using switch-based technology.[85]

32. As we explained above, implementing nationwide 711 access to TRS will significantly improve the ability of people with hearing and speech disabilities to utilize the

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80 *Id.*.

81 *See* GTE August 2, 1999 *Ex Parte* Attach., A at pp.1-2; Bell Atlantic June 12, 2000 *Ex Parte* at Attachs. A-B.

82 *See* Bell Atlantic June 12, 2000 *Ex Parte* at Attach., A.

83 *Id.* at Attach. B.

84 *Compare* Nevada Press Release (stating that 711 was fully implemented by April 1, 2000) *with* Letter from Todd Butterworth, Administrator, Relay Nevada, to all Nevada CPCN companies, (dated March 15, 2000) (stating that in December 1999, CPCN companies were requested to implement 711 access to TRS).

85 GTE Comments at 2.

telephone network, as well as the ability of the general public to communicate with people with hearing and speech disabilities through TRS. The sooner 711 access to TRS is implemented on a nationwide basis, the sooner all Americans will experience the enhanced efficiency and convenience that three-digit dialing has to offer. Thus, we hereby require that all telecommunications carriers, including wireline, wireless, and payphone providers, implement 711 access to all relay services, in accordance with Commission's standards as detailed above, on or before October 1, 2001. We defer to the expertise of the carriers, in cooperation with individual states and TRS providers, to develop and determine the most appropriate technological means of implementing 711 access to TRS, as their particular network topologies and architectures might dictate.

3. Other Implementation Issues

a. Background

33. Although we find that there are no issues relating to technical feasibility that would prevent carriers from making the necessary modifications to their switches to enable 711 access to TRS pursuant to the standards set out in this Order, we are aware of unique implementation issues facing some payphone providers. In addition, private branch exchange (PBX) providers, [86] who are not common carriers, may need to make modifications to their systems to allow 711 access to TRS. Finally, we are aware that while wireless 711 calls can be translated to any seven or ten-digit number and connected with relay centers, wireless carriers may face challenges related to the proper routing and billing of TRS calls.[87]

b. Discussion

34. Wireless Carriers. In its July 5, 2000, *ex parte* filing, CTIA details several problems wireless carriers face in providing access to TRS.[88] First, CTIA states that, because wireless systems are configured based on their licensed coverage areas, which often do not coincide with state local access and transport area (LATA) boundaries, wireless calls are routed to the nearest switch, which may or may not be located within the same state as the caller.[89] Thus, CTIA explains, wireless TRS callers may get routed to a relay provider located in a different state than the one in which the caller is located.[90] Second, CTIA states that wireless callers roaming outside of their home territory would be routed to the relay center serving the

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86 PBX systems are on-site telephone systems that provide connections between staff at organizational sites and between staff and people outside of the system. PBX systems are located on the customers' premises. DODD, *supra* n.53.

87 CTIA July 5, 2000 *Ex Parte* at 1.

88 *Id.*

89 *Id.*

90 *Id.*

caller's geographic location, not the relay center serving the caller's home territory.[91] According to CTIA, in order for roaming wireless callers to successfully complete a 711 call, an intrastate relay provider must be willing and able to handle the call.[92] Third, CTIA maintains that when a wireless call is routed to a local TRS center, the TRS center often cannot identify the call as a wireless call. The consequence, CTIA maintains, is that such calls are often erroneously identified as interstate calls.[93] These problems further complicate billing for wireless TRS calls because, as CTIA notes, at this time wireless billing systems are not configured for billing TRS calls.[94]

35. We acknowledge the issues raised by CTIA relating to the provision of wireless 711 access to TRS, and agree that the capability and readiness of the relay center to handle wireless calls is a critical component in enabling the wireless carrier to fulfill its customers' expectations that they will receive relay services. Some of the problems raised by CTIA, however, may not relate specifically to our requirement to implement 711 access to TRS, but instead to the existing obligation to provide wireless access to TRS.[95] One unique problem that arises as a result of the Commission's 711 obligations is that wireless callers roaming outside their home territory will be routed to the relay center serving the caller's physical location, or possibly the cell tower's or mobile switch's physical location, rather than the caller's home location. The relay center must then be able and willing to handle the call despite the fact that it may be identified as an out-of-state call. Nonetheless, as we noted in our *Improved TRS Order*, our current rules require TRS to be capable "of handling any type of call normally provided by common carriers and the burden of proving the infeasibility of handling any type of call will be placed on the carriers."[96] Furthermore, as we also stated in that Order, we need not create new rules to address the problems related to wireless access to TRS because our rules already establish the obligation to properly complete all TRS calls.[97] Therefore, based on the ease of translating 711 calls into traditional seven or ten-digit TRS calls, which all carriers, including wireless carriers, are already required to complete, we believe that requiring wireless carriers to implement 711 access to TRS within one year is reasonable.[98]

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91 *Id.*

92 *Id.*

93 *Id.*

94 *Id.*

95 *Id.* (stating that wireless carriers can translate 711 to seven or ten-digit number. Once a 711 call is translated, it would have the same characteristics as the full seven or ten digit number. The same routing, roaming and billing problems would apply to a 711 call or a 7 or 10 digit call).

96 47 C.F.R. § 64.604(a)(3).

97 47 C.F.R. § 64.604(a)(3).

98 *See* CTIA July 5, 2000 *Ex Parte* at 1.

36. While we do not require specific solutions to the challenges of implementing wireless 711 access to TRS, we do expect wireless carriers, relay providers, and any other relevant parties to work together to fulfill all of the requirements established in this Order, by the one-year implementation deadline, in addition to fulfilling existing requirements under our TRS rules. We note that states may need to modify their contracts with relay providers to facilitate this arrangement. We encourage the states to do so as expeditiously as possible. Moreover, where relay providers incur additional costs associated with setting up mechanisms to identify and handle wireless calls, these costs would be reimbursable, as discussed below, under existing intrastate and interstate funding mechanisms.

37. We defer to the expertise of carriers and relay providers to identify and deploy the best method of implementation in light of their particular circumstances. We recognize, however, that unless both wireless carriers and relay providers make the necessary modifications to their systems in a coordinated fashion, the successful implementation of 711 access to TRS will be delayed. Accordingly, we strongly encourage wireless carriers, relay providers, and other relevant parties to work together in an industry forum or other appropriate collaborative process to develop solutions to implement 711 access to TRS in accordance with our rules.

38. We believe that carriers and relay providers are in the best position to judge whether they are making sufficient progress towards resolving the implementation issues raised by CTIA. Accordingly, if within 4 months of the effective date of this Order, wireless carriers believe that they will not be able to resolve these implementation issues in a timely manner, we urge them, either individually or collectively, to file a report with the Commission stating that their ability to comply with the one-year deadline is in jeopardy. We also encourage relay providers to file a similar report if they deem it necessary. The report should contain specific details of any collaborative efforts to date, including a timeline, details of the implementation issues resolved and of outstanding issues or other problems causing the jeopardy, and the names and necessary contact information for the individuals participating in any collaborative efforts. The report should estimate the impact of the problem, including anticipated delay and/or restrictions to market coverage or feature support. We expect that these "jeopardy" reports will form the basis for discussions with the Commission about possible solutions to the outstanding implementation issues. If we do not receive a report of this nature, we will assume that the ability to comply with the one-year timeframe is not in jeopardy. Moreover, as we reminded carriers in the *Improved TRS Order*, if necessary, the Commission may consider enforcement action, including forfeitures, should carriers fail to meet their obligations regarding access to relay services.[99] We are confident, however, that both wireless carriers and relay providers will make the upgrades necessary to allow relay providers to recognize incoming wireless calls as bonafide TRS calls and to properly route and bill all TRS calls.

39. Payphone Providers. We recognize that payphone providers will have to make

[99] *Common Carrier Bureau Reminds All Common Carriers of their Obligation to Provide Access to Their Telecommunications Services via Telecommunications Relay Services*, Public Notice, DA 99-1871, rel. Sept. 14, 1999.

modifications to their equipment in order to implement 711 dialing and to ensure that the 711 call to the relay center is a toll free call. According to information provided by the American Public Communications Council (APCC), there are generally two types of payphone terminal equipment, "dumb" and "smart" payphones.[100] "Dumb" payphones are connected to central office-controlled payphone lines, also known as smart payphone lines or coin lines.[101] "Smart" payphone terminals are connected to dumb payphone lines, which are traditional business lines with added features such as call screening and call blocking.[102] APCC indicates that the best way for smart payphones to route 711 calls would be identical to the way 911 calls are routed.[103] The payphone provider would send the three-digit call to the LEC switch and the LEC switch would translate the three-digit call into the seven or ten-digit destination number.[104] Based upon the descriptions provided by APCC detailing how providers of smart payphones would handle 711 calls, we conclude that it is technically feasible for payphone providers deploying smart payphones to implement 711 access to TRS.[105] Since dumb payphone lines are traditional business lines with added features, this conclusion applies equally to payphone providers deploying dumb payphones.[106] We base this conclusion on the information provided by APCC, the technical feasibility of 711 for wireline carriers, and the fact that payphone providers deploying dumb payphones have implemented 911 dialing, which requires technical modifications similar to those required for 711 dialing.[107]

40. PBX Providers. We also recognize that companies providing PBX equipment to businesses and organizations will need to program their PBXs to enable 711 dialing to TRS centers from their user locations. Because many individuals work for companies and organizations that utilize PBXs, modifying PBXs to accommodate 711 dialing is essential to ensuring that all Americans have the opportunity to benefit from this abbreviated dialing arrangement. Based upon information provided by Lucent Technologies, we believe that programming most PBXs to handle 711 is technically feasible and would not impose any undue

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100 Letter from Phillip Verveer, American Public Communications Council (APCC), to Jamal Mazrui, Technology Specialist, Common Carrier Bureau, Federal Communications Commission, CC Docket No. 92-105, at 1 (filed July 20, 2000) (APCC July 20, 2000 *Ex Parte*).

101 *Id.*

102 *Id.*

103 *Id.*

104 *Id.*

105 *Id.* at 2-3 (relating how four different smart payphone providers would handle 711 calls).

106 *Id.* at 2.

107 *Id.*

burdens or costs.[108] Our finding of technical feasibility is further supported by the fact that PBXs generally support 911 access to emergency services, and the necessary programming is analogous. We realize that callers from PBX locations may be required to dial 9 or another prefix before entering the 711 code where the prefix would also be needed for all other outside calls. We do not, however, consider this dialing arrangement to be an impediment to modifying PBX systems to permit 711 dialing for access to TRS. We encourage PBX operators to work with carriers and TRS providers to facilitate 711 dialing from their user locations.

C. Cost Recovery

a. Background

41. In the *N11 Further Notice,* the Commission solicited comments regarding the projected costs for implementing and maintaining 711 access to TRS and the means by which carriers should recover those costs.[109] While parties submitted little specific cost data in response to our requests, several industry participants argued for the recovery of costs associated with implementing 711 access to TRS.[110] In terms of specific cost estimates, in response to the *N11 NPRM*, AT&T estimated that development costs for implementing 711 access with a gateway feature in its relay service centers would approach $10.0 million.[111] Most commenters, however, maintained that it was impossible to reasonably estimate costs until after the Commission had established the technical and operational parameters for implementing 711 access to TRS.[112]

42. At the *711 Forum*, both Bell Atlantic and Maryland Relay provided some cost data based on their successful implementation of 711 access in Maryland. Bell Atlantic estimates that it would cost less than $100,000 per state to install an AIN-based platform to accommodate 711 access to TRS.[113] Bell Atlantic states that this estimate only includes its own "incremental" costs.[114] In an *ex parte* filed June 2000, Bell Atlantic notes that although there were real

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108 Letter from Diane Law Hsu, Lucent Technologies (Lucent), to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 92-105, at 1-2 (filed July 14, 2000) (Lucent July 14, 2000 *Ex Parte*) (stating that many of Lucents PBXs may be converted to 711).

109 *N11 Further Notice*, 12 FCC Rcd at 5610, para. 67.

110 CTIA Comments at 5,

111 *See 711 Forum*, Transcript at 52-54. *See also* AT&T Comments at 4. We note that AT&T made its estimates prior to actual development or implementation.

112 *See., e.g., 711 Forum.* Participants refering to the possibility of multivendoring requirements, which would significantly increase the cost of implementing 711. *See also* Sprint Comments at 4.

113 *711 Forum*, Transcript at 17.

114 *Id.*

expenses involved in implementation of 711 access, the costs were within the range of other routine network upgrades and changes.[115] Bell Atlantic has not, therefore, sought to recover costs for the implementation of 711 access.[116] We commend Bell Atlantic for its stance on TRS cost recovery.

b. Discussion

43. Two categories of costs associated with 711 access to relay services are at issue: costs incurred by relay providers related to providing 711 access to TRS, and costs incurred by carriers related to implementing 711 access to TRS. Our rules provide for specific cost recovery mechanisms for costs related to relay providers' provision and maintenance of TRS,[117] and therefore, costs that relay providers incur associated with implementation and maintenance of 711 access to TRS. In contrast, there is no specific cost recovery mechanism for carrier implementation of access to TRS service, whether or not such access is accomplished via 711. Carriers bear and recover their own costs associated with providing access to TRS.

44. Carriers. Implementation costs associated with providing access to TRS through 711 must be borne by all common carriers as an obligation under section 225(b)(1) of the Act.[118] Recovery of the costs associated with implementing 711 may not fall disproportionately on TRS users, as all carriers are obligated to ensure that TRS users pay rates no greater than the rates paid for functionally equivalent voice communications services.[119] Wireline carriers may properly include the costs they incur in implementing 711 access to TRS with their joint and common costs and recover those costs from the rates charged for intrastate and interstate services, separated pursuant to the Commission's jurisdictional separation rules.[120] Wireless carriers, which are neither subject to economic rate regulation nor to the jurisdictional separations rules, may recover their costs of providing access to TRS through 711 in any lawful manner that is consistent with their obligations under 47 U.S.C. § 225 (d)(1)(D) and 47 CFR § 64.604(c)(4). Carriers may recover education and outreach costs associated with providing access to TRS through 711 in the same manner that they recover other costs associated with implementing 711, as explained *supra*.

45. Relay Providers. We find that some of the costs imposed upon relay providers that are associated with the implementation and operation of 711 access to TRS, and education and outreach regarding this service, are likely to be intrastate costs. For costs associated with

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115 Bell Atlantic June 12, 2000 *Ex Parte* at Attach. A.

116 *Id.*

117 47 C.F.R. § 64.604(c)(5).

118 47 U.S.C. § 225(b)(1).

119 *See* 47 U.S.C. § 225(d)(1)(D); 47 CFR § 64.604(c)(4).

120 *Id.*, 47 CFR § 64.04 (c)(4)(i).

intrastate minutes of use, we conclude that the states should establish the appropriate cost recovery mechanism as required by section 225(d)(3)(B).[121] Thus, to the extent that the state is certified to provide TRS under section 225 (f) of the Act, the state must permit relay providers that fall under state regulatory jurisdiction to recover intrastate costs related to 711 implementation, including costs associated with education and outreach.[122] We acknowledge that states and relay providers may need to adjust their contracts in order to allow relay providers to recover these costs.

46. We also find, however, that a portion of these costs may be attributable to the provision of interstate TRS. TRS providers shall submit the costs of providing 711 access, including the costs of education and outreach, as part of the annual data report of their total TRS operating expenses, to the interstate TRS Fund Administrator for purposes of computing payment and revenue requirements for the following year.[123] The Fund Administrator must then consider these payment and revenue requirements when establishing the payment formula to compensate TRS providers for reasonable costs associated with 711 access to TRS, including the costs of education and outreach, as well as when determining the contributions to the fund that interstate telecommunications carriers must make.

47. Finally, we note that in the *Improved TRS Order,* we directed the Fund Administrator and the Interstate TRS Advisory Council to develop rules for recovery of costs associated with additional requirements related to the provision of TRS set out in that Order, within six months of its publication in the Federal Register.[124] We directed the Fund Administrator and the Council to consider the comments regarding the cost recovery rules raised in that rulemaking.[125] Because 711 access to TRS is a legitimate cost incurred in the provision of TRS, the Fund Administrator and Interstate TRS Advisory Council must account for the costs of providing 711 access when developing the rules for cost recovery as required in the *Improved TRS Order.*[126] We encourage the public to include in their comments on the rules for recovery of costs any specific information related to the recovery of additional costs for 711 access to TRS.

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121 47 U.S.C. § 225(d)(3)(B).

122 47 U.S.C. § 225 (f).

123 *See* 47 C.F.R. § 64.604(c)(5)(iii)(C).

124 *Improved TRS Order*, FCC 00-56 at para. 33.

125 *Id. See also* Ms. Andrews Comments at 1; AIM Comments at 1; FPSC Comments at 2; Mr. Gregory Comments at 6; MCI Comments at 3; NCOD Comments at 1; NVRC Comments at 1; the President's Committee Comments at 5; Sprint Comments at 5; Mr. Stolz Comments at 2 (conditioning his support upon protection against the funding of voluntary projects that may not be in the best interest of improved relay service); Texas PUC Comments at 3; Dr. Ratcliff Comments at 1; Dr. Segalman Comments at 1; Dr. Blackstone Comments at 1; Ms. Fairman Comments at 1; Mr. Fleming Comments at 1; Ms. Ladew Comments at 1; the Federation Comments at 2; Texas PUC Comments at 3; Mr. Travers Reply Comments at 2; COR Reply Comments at 5.

126 *Improved TRS Order*, FCC 00-53 at para. 33.

D. Multivendoring

1. Background

48. In the *N11 Further Notice*, we asked interested parties to address how competition among relay providers would be maintained, in accordance with section 225(c) of the Act, if N11 access to TRS were implemented.[127] Section 225(c) of the Act requires TRS to be provided "individually, through designees, through a competitively selected vendor or in concert with other carriers."[128] Specifically, in the *N11 Further Notice* and at the September 1999 TRS Forum, we invited parties to address the possibility of developing an N11 "gateway," or automated interactive menu, to promote access by consumers to multiple TRS providers.[129] As we explained in the *N11 Further Notice*, with a gateway, a database inquiry would be launched as calls are initiated and callers would be able to select their TRS provider.[130] Alternatively, callers would have their calls routed to a presubscribed TRS provider, much like how consumers today presubscribe to a long distance provider for 1+ long-distance calls.[131]

49. In comments filed in response to the *N11 Further Notice*, Sprint expressed concern that an N11 dialing arrangement would only allow for access to one TRS provider, forcing other providers to use toll-free numbers.[132] Sprint contends that the TRS provider that received the right to offer N11 access would be in a superior competitive position to other potential operators of TRS centers and this could deter entry of such competitors.[133] Other commenters argued that requiring carriers to convert local switching offices to translate to a single TRS provider's toll-free number or other access number would be inconsistent with the preservation of having a single abbreviated number for accessing TRS.[134] Southwestern Bell questioned whether the number of TRS calls within each state is so limited that it may be impossible for multiple, competing TRS providers to be financially viable in the same state.[135]

50. NAD recommends maintaining competition in the same way that callers now use

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127 *N11 Further Notice*, 12 FCC Rcd at 5610, para. 67.

128 47 U.S.C § 225(c).

129 *N11 Further Notice*, 12 FCC Rcd at 5610-5611, para. 68.

130 *Id.*

131 *Id.*

132 Sprint Comments at 2.

133 *Id.*

134 *See, e.g.*, BellSouth Comments at 5.

135 SBC Comments at 4; BellSouth Comments at 3.

Dial-One Service for their long distance carriers. Under NAD's proposal TRS customers should be able to presubscribe to their preferred relay vendor from their homes or businesses[136] but also have the ability to access a different provider when away from their "pre-selected phone." According to NAD, presubscription would enable relay providers to compete for individual consumer subscriptions and allow state or regional contracts to serve as the default TRS vendor for those regions. NAD states that travelers would be able to simply dial 711 from any phone and be assured access to TRS anywhere in the United States; providers could compete for business from consumers who are away from their pre-selected phones as these consumers would be able to dial either the existing national toll-free number or an alternative relay code to access that vendor.[137]

51. We recently addressed the state of relay competition in our *Improved TRS Order.* In that Order, we explained that most states and carriers currently comply with the requirement under section 225(c) to provide TRS by competitively selecting a single relay provider through a request for proposal process.[138] TRS users are required to use their state's chosen TRS provider for intrastate calls. However, callers may make interstate calls through their state's provider or choose another TRS provider by dialing national toll-free numbers.[139] In the *Improved TRS Order* we agreed with commenters that "competitive forces are generally the preferred way to improve service quality and bring new services to customers."[140]

52. On April 27, 2000, the Common Carrier Bureau released the *Telegate Public Notice*[141] requesting further comment on Telegate AG's (Telegate) proposal (Telegate Proposal) for presubscription to 411 access to directory assistance. In the *Telegate Public Notice*, we also specifically requested comment on the technical feasibility and economic viability of implementing presubscription to 711 access to TRS, and whether implementing presubscription for 711 access to TRS would serve the public interest.[142] The resolution of the questions pertaining to the presubscription to N11 codes in that proceeding may provide a framework for

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136 NAD Comments at 3.

137 *See* Letter from NAD, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 92-105, at 5 (filed Sept. 27, 1999) (NAD Sept. 27, 1999 *Ex Parte*).

138 *Improved TRS Order*, FCC 00-56 at para. 34. We noted that the cost of the intrastate relay service contract is generally recovered from all ratepayers in the state, either through an intrastate subscriber line surcharge or through the general ratemaking process. Interstate TRS is funded by a nationwide, interstate fund administered by NECA.

139 *Id.*, FCC 00-56 at para. 34.

140 *Id.*, FCC 00-56 at para. 37.

141 *Common Carrier Bureau Seeks Further Comment on Telegate's Proposal for Presubscription to "411" Directory Assistance Services,* CC Docket No. 99-273, CC Docket No. 98-67, Public Notice, DA 00-930 (rel. Apr. 27, 2000) (*Telegate Public Notice*).

142 *Id.* at 3.

identifying measures that would facilitate and expedite multivendoring through presubscribed 711 access to TRS. Estimates of the cost of implementing presubscription to 411 access to directory assistance filed in that proceeding varied greatly.[143] The discrepancy of cost estimates is based, in part, upon whether or not the cost of converting switches over to AIN was included in the cost estimate.[144]

2. Discussion

53. We conclude, particularly in light of the current state of competition in the intrastate TRS market, that the benefits of 711 access to TRS described in this Order are too great and too immediate to warrant a delay that would result from a Commission requirement to implement presubscription or multivendoring as this time. As we noted in our *Improved TRS Order*, only a few states have experimented with multivendoring.[145] In fact, many commenters to this proceeding have asserted that the number of TRS calls within each state is so limited that multivendoring within the same area may not, at present, be a financially viable alternative.[146]

54. We recognize, as we have in undertaking other pro-competition initiatives, that in order to encourage competition, the market for TRS must be (1) conducive to investment and innovation and (2) responsive to the needs of consumers. We believe that 711 access to TRS will address these objectives in two significant ways. First, by offering TRS users, particularly those traveling from state to state, easy to remember access to the particular relay service that they use or need (*e.g.*, TTY, voice, VCO, HCO and speech-to-speech), 711 access will encourage greater usage and spur competition and innovation to meet increased consumer demand.[147] As we explain above, 711 access to TRS has increased the volume of TRS traffic in Maryland.[148] Most notably, abbreviated access has significantly augmented TRS use among hearing individuals who now find it easier to return calls to TRS users.[149] By simplifying access to TRS and ensuring a uniform, nationwide platform that provides TRS users easy access to their preferred TRS provider, it is possible that 711 access will attract potential, additional TRS

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143 *Compare* Telegate Proposal at 14 (estimating total cost of implementation at less than $23 million), *with* GTE Comments on Telegate Proposal at 17 (estimating total costs of over 310 million), *and* U S WEST Comments on Telegate Proposal at 15 (stating that Telegate underestimated the total costs by a factor of four).

144 *See* Telegate Reply Comments on Telegate Proposal at 17, 29 (stating that GTE's cost estimation includes $40 million dollars for network upgrades that Telegate did not include in its cost estimate). *Compare* Telegate Proposal at 14, Celentano Aff. at para. 53, *with* GTE Comments on Telegate Proposal at 17, *and* U S WEST Comments on Telegate Proposal at 15.

145 *Improved TRS Order*, FCC 00-56 at para 37.

146 *See* SBC Comments at 4; BellSouth Comments at 3.

147 *See* NAD Comments at 2; Maryland Relay June 7, 2000 *Ex Parte* at 3.

148 Maryland Relay June 7, 2000 *Ex Parte* at 3.

149 Maryland Relay April 3, 2000 *Ex Parte* at 3.

vendors to states that currently do not have multiple vendors.

55. We will continue to support multivendoring because we believe that it will ultimately reduce the costs and improve the quality of TRS throughout the nation. We are persuaded that the implementation of 711 access as described in this Order will not hinder the introduction of multivendoring. On the contrary, we believe that 711 access to TRS is likely to expand the market of relay users, making entry into the TRS market more attractive for would-be competitors. Competition already exists for interstate access to TRS,[150] and none of the requirements in this Order implementing intrastate access to 711 alter the ability of consumers to choose their interstate provider to access TRS. Furthermore, we encourage state relay administrators to retain their 800 numbers and to configure their 711 platforms in a manner that will enable consumers to access their preferred relay providers, should such states subsequently elect to implement multivendoring. Although we make no findings at this time as to the feasibility of Telegate's proposal for 711 access to TRS, we will review comments filed in response to the *Telegate Public Notice*, and may implement presubscription to 711 access to TRS at a later date should we find that to be technically feasible, economically viable, and in the public interest. We encourage carriers to consider Telegate's proposal when deciding which technology to use in implementing 711 access to TRS.

E. Education and Outreach

1. Background

56. In the *Improved TRS Order,* we recognized that the Commission's TRS rule requiring publication in telephone directories, periodic bill inserts, and directory assistance services was insufficient to ensure that all callers are aware of available relay services.[151] Moreover, we found that the quality of TRS suffered from the lack of awareness.[152] Although we concluded that there was insufficient notice to effectuate a rule change at that time, based upon lengthy comments provided by several parties in that proceeding on the need for more effective outreach activities,[153] we proposed a number of rule changes designed to increase the awareness of consumers both with and without hearing or speech disabilities about the availability and use of TRS.[154] Among other things, we proposed a nationwide awareness

150 NAD Comments at 3 (stating that AT&T, Sprint and MCI compete for the interstate TRS market).

151 *Improved TRS Order*, FCC 00-56 at para. 103; Section 64.604(c)(2) of the Commission's rules requires that carriers assure that callers in their service areas are aware of the availability and use of TRS. The rule specifies that this can be accomplished through publication in their directories, periodic billing inserts, placement of TRS instructions in telephone directories, through directory assistance services, and incorporation of TTY numbers in telephone directories. 47 U.S.C. § 64.604(c)(2).

152 *Improved TRS Order*, FCC 00-56 at paras. 103-04.

153 Maryland Reply Comments at 12; TDI Comments at 20; NAD/CAN Reply Comments at 12; NVRC Reply Comments at 3.

154 *Improved TRS Order*, FCC 00-56 at para. 134.

campaign that would be financed by the interstate TRS Fund, that would reach all potential TRS users, consumers with disabilities, senior citizens who have lost their hearing late in life, potential STS users, and the general public.[155] We also proposed to amend the mission of the interstate TRS Advisory Council to include establishing rules and a procedure to fund a coordinated national outreach campaign.[156] The Commission will consider the record developed in that proceeding in assessing if and how the TRS rules should be modified to expand consumer awareness of available relay services.

57. At the *711 Forum*, we asked participants to discuss methods to educate and provide technical assistance to the public about 711 access to TRS.[157] Participants raised concerns about adequately educating the public regarding the purpose and use of 711, and distinguishing 711 TRS access from 911 emergency services.[158] Participants also emphasized that such efforts should be continuous and ongoing, not ad hoc or infrequent, in nature.[159] Others were concerned about the lack of information available to state PUCs who were often responsible, in large part, for educating the public about available relay services.[160]

2. Discussion

58. Importance of Education and Outreach Programs. We believe that extensive outreach campaigns are necessary when carriers implement 711 access to TRS as required in this Order. We emphasize that the consumer education and outreach efforts contemplated under our proposals in the *Improved TRS Further Notice* will be particularly important as carriers, in cooperation with relay providers and states, implement 711 access to all relay services.[161] In accordance with our existing rules, we encourage carriers, states, and relay providers to implement education and outreach programs that will increase public awareness and understanding of 711 access to TRS. Education and outreach programs will not only serve to enhance the effectiveness of the abbreviated dialing service, but also will prevent misunderstanding on the part of consumers who may otherwise misdial N11 numbers, inadvertently incurring charges for 411 directory assistance or erroneously calling 911 emergency services.[162]

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155 *Id.*, FCC 00-56 at para. 134.

156 *Id.*, FCC 00-56 at para. 134.

157 *711 Forum*, Transcript at 66.

158 *Id.* at 70-71.

159 *Id.* at 79.

160 *Id.* at 81.

161 *See generally Improved TRS FNPRM.*

162 *711 Forum*, Transcript at 70.

59. We agree with NAD and other commenters that in order for 711 access to TRS to be a success, TRS providers and common carriers, in conjunction with the states, will need to provide extensive information to the public about the existence of 711.[163] For instance, as USTA recommends, states that currently maintain more than one toll-free number for relay service should educate their customers that the relay center responding to 711 calls will, by process of elimination, have to determine which relay service the caller needs.[164] Furthermore, as explained by NAD, education about the routing of wireless TRS calls is needed.[165]

60. We encourage carriers, states, and relay providers to be aware of and target specific segments of the market that would benefit from additional information about 711 access. For instance, education and outreach is especially important to reach potential VCO users and help them to realize the benefits that relay services can provide. Of the 26 million people who are hard of hearing in the US, a conservative estimate of those having difficulty hearing on the voice phone and who could benefit from VCO is 5 to 7 million users.[166] According to Self Help for Hard of Hearing People, Inc. (SHHH), the percentage of VCO users in any given state currently tends to be lower than that of TTY users.[167] The reason for this is because VCO users are often people who have lost their hearing later in life; therefore, they are used to the speed and efficiency of the voice system and have higher expectations of telephone service. SHHH maintains that the real potential for relay service growth lies with these VCO users. Their prior experience with the regular telephone service creates a difficult transition to the relay service. Any relay feature, such as 711, that brings relay a step closer to the conventional telephone service will help encourage use of TRS by VCO users. The key to encouraging use of TRS by VCO users, as with all TRS users, is adequate education regarding the availability and ease of 711 dialing.

61. Method of Education and Outreach. In order to ensure the efficient, effective, and successful use of 711 access to TRS, we require carriers, in cooperation with relay providers and the states, to engage in on-going and comprehensive education and outreach programs to publicize the availability of 711 access in a manner reasonably designed to reach the largest number of consumers possible. We recognize that a method that is reasonably designed to reach the largest number of consumers in one state or location may not be equally effective in another location. For that reason, we do not mandate in this Order any specific means of advertising 711

163 NAD Reply Comments at 10-11; USTA Comments at 4.

164 *Id.*

165 NAD Reply Comments at 10.

166 *Ex Parte* Comments of Self Help for Hard of Hearing People (SHHH), Inc., CC Docket No. 92-105 (filed August 20, 1999).

167 *Id.*, at 3.

access to TRS. Instead, we highlight some of the important issues that could be addressed through advertising campaigns, and provide an example of a successful education and outreach program that states can emulate when adopting their own campaigns. We emphasize, as discussed *supra,* that part of the costs of these education and outreach programs may be intrastate costs recoverable through established funding mechanisms. Accordingly, we encourage the states to establish a cost recovery mechanism as quickly as possible so that these costs can be recovered through the intrastate TRS fund. To the extent costs of education and outreach are attributable to the provision of interstate TRS, as stated above, relay providers should include these costs as part of their annual data report of their total TRS operating expenses.

62. While carriers must continue to utilize bill inserts and provide information in telephone directories pursuant to the Commission's current TRS rules, we also encourage carriers, states, and relay providers to disseminate information through the mainstream media, including newspaper, radio, and television advertisements and articles, which can more effectively reach substantial portions of the American public. Additionally, we encourage the dissemination of information about 711 access through conferences and membership publications of individuals who are deaf, hard of hearing or have speech disabilities, and of senior citizens, to reach significant segments of the population that could benefit from relay services. Furthermore, we agree with commenters at the *711 Forum* that carriers, relay providers, and states should implement an outreach program similar to that used for 911.[168] One reason why certain PSAs are so successful in reaching the mainstream population is that states have often solicited the endorsement of public figures to proclaim the benefits of 911 and to celebrate the accomplishments of those who work in the field of emergency communications.[169] These public figures then continue to conduct outreach to the public by appearing at events and through print media.[170] We believe that a similar campaign is sure to be equally successful in the implementation of 711 access to TRS.

63. Because we recognize that 711 access to TRS was effectively implemented in Maryland, we provide a brief description of some of the education and outreach programs instituted when Maryland implemented 711 dialing for TRS access. The program, coordinated by Maryland Relay, is a product of a cooperative effort by the Department of Budget and Management, Bell Atlantic, the state government, and Sprint, the current relay provider.[171] Maryland relay began the comprehensive outreach program with a press conference that was attended by members of broadcast and print media. Maryland found that the presence of the press generated a significant amount of follow-up coverage. As a follow up, Maryland conducted a paid television advertising campaign in the two largest relevant television markets,

168 *711 Forum,* Transcript at 72.

169 *Id.,* Transcript at 71. However, in order to be successful, it is important that PSAs are not hidden during the middle of the night, or other times where only small audiances will be exposed to 711.

170 *Id.*

171 *Id.,* Transcript at 82-87.

Baltimore and the Washington metropolitan area. They supplemented this paid advertising with free public-service announcements. During this same time period, they began advertising in both the Washington Post and the Baltimore Sun, running the same advertisement in publications that reach consumers with hearing disabilities. Maryland relay also publishes its own newsletters twice a year and has included articles on 711 access.[172] Bell Atlantic participated in the advertising campaign by providing, at no charge, bill inserts that advertised the ease of use of 711 access and explained the available relay services.[173] Finally, Maryland relay continues to provide a toll-free, customer-service number that provides information and technical assistance to individuals requesting information about 711 access.[174] Maryland asserts that as a result of its campaign, public awareness is at an all-time high, telephone inquiries to the state's Maryland relay customer service department for information regarding relay have risen dramatically, and call volumes to the relay center have increased significantly.[175]

64. We commend the Maryland Department of Budget and Management, Bell Atlantic, Maryland Relay, the State of Maryland and Sprint for their coordinated and effective outreach and education efforts concerning 711 deployment in Maryland. Although the record reflects that the education and outreach program in Maryland has been very successful, this by no means serves as an exhaustive list of efforts that can be taken. We applaud the efforts of Maryland and other states that have successfully implemented 711 access to TRS, and encourage carriers, relay providers, relay centers, and states to institute the most creative and wide-spread advertising campaign possible.

IV. Procedural Matters

A. Regulatory Flexibility Act

65. As required by the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *N11 Further Notice*. The Commission sought written public comment on the proposals in the *N11 Further Notice*, including the IRFA. Appendix B sets forth the Final Regulatory Flexibility Analysis for this Second Report and Order.

B. Final Paperwork Reduction Act Analysis

66. The Notice did not propose changes to the Commission's information collection requirements, and therefore, an initial paperwork reduction analysis was not required by the Paperwork Reduction Act of 1995. The Commission certifies that no information collection

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172 *Id.*

173 Bell Atlantic June 12, 2000 *Ex Parte* Attach. A at 2.

174 *711 Forum*, Transcript at 83-86.

175 Maryland Relay Comments at 12-13.

changes are imposed by the rules adopted in this order. The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1995 and found to impose no new or modified reporting and/or record-keeping requirements or burdens on the public.

V. ORDERING CLAUSES

67. Accordingly, IT IS ORDERED that, pursuant to authority found in sections 1, 4(i) and 4(j), 201-205, 218, 225, and 251(e)(1) of the Communications Act as amended, 47 U.S.C. Sections 151, 154(i), 154(j), 201-205, 218, 225, and 251(e)(1) this Report and Order IS ADOPTED, and Part 64 of the Commission's rules ARE AMENDED as set forth in the attached Appendix A.

68. IT IS FURTHER ORDERED that each common carrier providing telephone voice transmission services shall provide, not later than October 1, 2001, access via the 711 dialing code to all relay services as a toll free call.

69. IT IS FURTHER ORDERED that the amendments to sections 64.601 through 64.605 of the Commission's rules as set forth in Appendix A ARE ADOPTED, effective October 1, 2001. The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1995 and found to impose no new or modified reporting and/or record-keeping requirements or burdens on the public.

70. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

71. IT IS FURTHER ORDERED, pursuant to sections 1, 4(i) and 4(j), 201-205, 218, 225, and 251(e)(1) of the Communications Act as amended, 47 U.S.C. sections 151, 154(i), 154(j), 201-205, 218, 225, and 251(e)(1) this Report and Order IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary

APPENDIX A: Final Rules

Part 64, Subpart F of Title 47 of the Code of Federal Regulations is revised as follows:

PART 64 - MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

Subpart F- Telecommunications Relay Services and Related Customer Premises Equipment for Persons with Disabilities

1. The authority citation for Part 64 is amended to read as follows:

AUTHORITY: 47 U.S.C. Section 154, 47 U.S.C. Section 225, 47 U.S.C. Section 251(e)(1)

2. In Section 64.601, we insert the following definition at the beginning:

711. The abbreviated dialing code for accessing all types of relay services anywhere in the United States.

3. We revise the first paragraph in Section 64.603 to read as follows:

Each common carrier providing telephone voice transmission services shall provide, not later than July 26, 1993, in compliance with the regulations prescribed herein, throughout the area in which it offers services, telecommunications relay services, individually, through designees, through a competitively selected vendor, or in concert with other carriers. Speech-to-speech relay service and interstate Spanish language relay service shall be provided by March 1, 2001. In addition, each common carrier providing telephone voice transmission services shall provide, not later than October 1, 2001, access via the 711 dialing code to all relay services as a toll free call. A common carrier shall be considered to be in compliance with these regulations:

4. We insert the following sentence at the end of Section 64.604(C) paragraph (2):

In addition, each common carrier providing telephone voice transmission services shall conduct, not later than October 1, 2001, ongoing education and outreach programs that publicize the availability of 711 access to TRS in a manner reasonably designed to reach the largest number of consumers possible.

APPENDIX B: Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA),[176] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the N11 Further Notice (Notice).[177] The Commission sought written public comment on the proposals in the notice, including comment on the IRFA. There were no comments received on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[178]

Need for, and Objectives of, this Report and Order.

2. This rulemaking proceeding was initiated in order to improve the uniformity and efficiency of services provided through telecommunications relay services (TRS) for the benefit of TRS users and members of the general public with whom they communicate. The Commission's goal was to improve the convenience and consistency of dialing for TRS by implementing the 711 code previously reserved for this purpose.

3. In the Notice, the Commission sought public comment on the technical feasibility of implementing 711 access to TRS. The Notice also asked parties: (1) if it would be possible to develop within a reasonable time an N11 "gateway" offering access to multiple TRS providers; (2) whether, with such gateway access, TRS calls would still be answered within the Commission's mandatory minimum standards for TRS answer times; (3) whether such a gateway would be consistent with section 255 of the Telecommunications Act of 1934, as amended by the Telecommunications Act of 1996; and (4) whether any other important disability services could be accessed through the same gateway. The Notice also requested comment from interested parties, particularly TRS providers, about the possibility of providing both voice and text TRS services through the same abbreviated N11 code (711).

4. In this Second Report and Order, we adopt rules that require all carriers to provide 711 access to all types of relay services. We require all wireline carriers, CMRS carriers, and payphone providers to implement 711 dialing on or before October 1, 2001. We also require carriers and relay providers, in cooperation with the states, to engage in on-going and comprehensive education and outreach programs that publicize the availability of 711 access to TRS in a manner reasonably designed to reach the largest number of consumers possible.

5. By requiring uniform, nationwide 711 access to TRS, we further our

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176 *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

177 *See Notice*, 14 FCC Rcd 10322 at 10433-41.

178 *See* 5 U.S.C. § 604.

Congressional mandate under the Americans with Disabilities Act to establish relay services that are functionally equivalent to voice telephone services. We expect that 711 dialing will make TRS easier and more convenient for all Americans. TRS users will be able to initiate a call from any telephone, anywhere in the United States, without having to remember and dial a 7 or 10-digit number, and without having to search for different numbers to access local TRS providers when traveling from state to state. We also expect an increase in the number of first-initiated and return relay calls by individuals without disabilities.

Summary of Significant Issues Raised by Public Comments in Response to the IRFA.

7. No comments were filed in response to the IRFA.

Description and Estimate of the Number of Small Entities to Which Rules Will Apply.

8. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[179] The Regulatory Flexibility Act defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small business concern" under section 3 of the Small Business Act.[180] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

9. *TRS Providers.* Neither the Commission nor the SBA has developed a definition of small entity specifically applicable to providers of TRS. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[181] The SBA defines such establishments to be small businesses when they have no more than 1,500 employees.[182] According to our most recent data,[183] there are 11 interstate TRS providers, which consist of interexchange carriers, local exchange carriers, state-managed entities, and non-profit organizations. We do not have data specifying the number of these providers that are either dominant in their field of operations, are not independently owned and operated, or have more than 1,500 employees, and we are thus unable at this time to estimate with greater precision the number of TRS providers that would qualify as small business concerns under the SBA's definition. We note, however, that these providers include large interexchange carriers and incumbent local exchange carriers. Consequently, we estimate that

179 5 U.S.C. § 603(b)(3).

180 *Id.* at § 601(3).

181 Small Business Act, 15 U.S.C. § 632 (1996).

182 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4813.

183 This is recent data from the National Exchange Carrier Association, which administers the Interstate TRS Fund.

there are fewer than 11 small TRS providers that may be affected.

10. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the number of commercial wireless entities, appears to be data the Commission publishes in its *Trends in Telephone Service* report.[184] However, in a recent news release, the Commission indicated that there are 4,144 interstate carriers.[185] These carriers include, *inter alia*, local exchange carriers, wireline carriers and service providers, interexchange carriers, competitive access providers, operator service providers, pay telephone operators, providers of telephone service, providers of telephone exchange service, and resellers.

11. The SBA has defined establishments engaged in providing "Radiotelephone Communications" and "Telephone Communications, Except Radiotelephone" to be small businesses when they have no more than 1,500 employees.[186] Below, we discuss the total estimated number of telephone companies falling within the two categories and the number of small businesses in each, and we then attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

12. *Total Number of Telephone Companies Affected.* The U.S. Bureau of the Census (Census Bureau) reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[187] This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, covered specialized mobile radio providers, and resellers. It seems certain that some of these 3,497 telephone service firms may not qualify as small entities or small ILECs because they are not "independently owned and operated."[188] For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It is reasonable to conclude that fewer than 3,497 telephone service firms are small entity telephone service firms or small ILECs that may be affected.

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184 Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, *Trends in Telephone Service*, Table 19.3 (March 2000).

185 Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, *Trends in Telephone Service*, Table 19.3 (March 2000).

186 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) codes 4812 and 4813. *See also* Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual* (1987).

187 U.S. Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (1995)(*1992 Census*).

188 *See generally* 15 U.S.C. § 632(a)(1).

13. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, inter alia, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[189] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[190] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Federal Communications Commission analyses and determinations in other, non-RFA contexts

14. *Local Exchange Carriers.* Neither the Commission nor the SBA has developed a definition for small providers of local exchange services (LECs). The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[191] According to the most recent *Telecommunications Industry Revenue* data, 1,348 incumbent carriers reported that they were engaged in the provision of local exchange services.[192] We do not have data specifying the number of these carriers that are either dominant in their field of operations, are not independently owned and operated, or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 1,348 providers of local exchange service are small entities or small ILECs that may be affected.

15. *Competitive Local Service Providers.* This category includes competitive access providers (CAPs), competitive local exchange providers (CLECs), shared tenant service providers, local resellers, and other local service providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to competitive local service providers. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[193] According to the most recent *Locator* data, 145 carriers reported that they were engaged in the provision of

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189 5 U.S.C. § 601(3).

190 Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3)(RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b). Since 1996, out of an abundance of caution, the Commission has included small incumbent LECs in its regulatory flexibility analyses. *See, e.g.*, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15499, 16144-45 (1996).

191 *Id.*

192 Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, *Trends in Telephone Service*, Table 19.3 (March 2000).

193 13 C.F.R. § 121.201, SIC code 4813.

competitive local service.[194] We do not have data specifying the number of these carriers that are not independently owned or operated, and thus are unable at this time to estimate with greater precision the number of competitive local service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 145 small entity competitive local service providers.

16. *Wireless Telephony and Paging and Messaging.* Wireless telephony includes cellular, personal communications service (PCS) and specialized mobile radio (SMR) service providers. Neither the Commission nor the SBA has developed a definition of small entities applicable to cellular licensees, or to providers of paging and messaging services. The closest applicable SBA definition for a reseller is a telephone communications company other than radiotelephone (wireless) companies.[195] According to the most recent *Locator* data, 732 carriers reported that they were engaged in the provision of wireless telephony and 137 companies reported that they were engaged in the provision of paging and messaging service.[196] We do not have data specifying the number of these carriers that are not independently owned or operated, and thus are unable at this time to estimate with greater precision the number that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 732 carriers are engaged in the provision of wireless telephony and fewer than 137 companies are engaged in the provision of paging and messaging service.

17. *Wireline Carriers and Service Providers.* The SBA has developed a definition of small entities for telephone communications companies except radiotelephone (wireless) companies. The Census Bureau reports that there were 2,321 such telephone companies in operation for at least one year at the end of 1992.[197] According to the SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.[198] All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small ILECs. We do not have data specifying the number of these carriers that are not independently owned and operated, and thus are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 2,295 small telephone communications companies other than radiotelephone companies are small entities or small ILECs.

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194 *Locator* at 1-2.

195 13 C.F.R. § 121.201, SIC code 4813.

196 *Locator* at 1-2.

197 *1992 Census, supra*, at Firm Size 1-123.

198 13 C.F.R. § 121.201, SIC code 4813.

18. *Pay Telephone Operators.* Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to pay telephone operators. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[199] According to the most recent *Trends in Telephone Service* data, 615 carriers reported that they were engaged in the provision of pay telephone services.[200] We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of pay telephone operators that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are less than 615 small entity pay telephone operators.

Description of Projected Reporting, Record-keeping, and Other Compliance Requirements.

19. This order mandates that, on or before October 1, 2001, all carriers must obtain the telephone number for the state-certified relay center in each state of operation. This number can be obtained by contacting either the state agency for TRS or the Federal Communications Commission. The cost of obtaining and maintaining this number on file is nominal for all businesses, including small entities. In addition, all state agencies for TRS must accept and address complaints regarding 711 access to TRS. The annual reports of these state agencies to the Federal Communications Commission must include a summary of such complaints. Therefore, the burden of monitoring complaints and compliance falls not upon small entities, but upon the appropriate state agencies.

Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.

20. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. 5 U.S.C. § 603(c).

21. We considered the status quo alternative that is, leaving 711 access to TRS up to voluntary, cooperative efforts among carriers, TRS providers, and state relay administrators. We

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199 13 C.F.R. § 121.201, SIC code 4813.

200 Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, *Trends in Telephone Service*, Table 19.3 (March 2000).

concluded, however, that uniform, nationwide 711 access to TRS would not occur without a Commission mandate, and without such uniformity, the great benefits of 711 access to TRS would be thwarted. We considered whether to permit compliance exemptions or time extensions for small carriers. Given the Congressional mandate that all carriers facilitate TRS that is "functionally equivalent" to voice transmission services, the burden would be especially high to justify waivers in 711 implementation. Since the record in this docket has shown the economic and technical feasibility of implementing 711 access to TRS by all carriers within a six-month period, we concluded that a year is ample time for all carriers to comply with this Order, including those small entities who might be affected by these new rules.

22. This order focuses on performance not design criteria to achieve 711 access to TRS. We do not require any particular network technology for 711 implementation. We anticipate that larger carriers with AIN technology will use that approach, whereas smaller carriers without it will use a switch-based approach. This latter approach was estimated to require 1.5 labor hours to reconfigure each switch, a cost we consider to be affordable over the course of a year, during which time other switch maintenance would probably occur. We expect that small payphone providers are likely to pass the 711 code to the local switch for translation, rather than making the translation in each of their payphones, thus assuring the affordability of 711 implementation to them.

Report to Congress

23. The Commission will send a copy of this Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the SBREFA.[201] In addition, the Commission will send a copy of this Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of this Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.[202]

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201 *See* 5 U.S.C. § 801(a)(1)(A).

202 See 5 U.S.C. § 604(b).

Appendix C: List of Parties

List of Comments

Ameritech
AT&T Corporation
Arbetta K. Hepfer
Bell Atlantic
Bell Atlantic and Nynex
BellSouth Corporation
Berks County Association
Cellular Telecommunications Industry Association
Community Outreach
Dana Mulvany
David J. Nelson
Edward B. Bill
Eleanor K. Hartley
Frank Nemshick
GTE
Guy R. Winters
Hearing Society
Idaho Public Utilities
J.C. Hartley
James E. Loughlin
John L. Johnson
Karen A. Keil
Karen Swezey
Lois Beck
Loudoun Organization on Disability
Mary Jane Paluska
MCI Telecommunications
MCI Worldcom
Mitchell D. Travers
Nancy Dietrich
NYNEX
National Association of the Deaf
PA Public Utility Commission
Pacific Telesis Group
Pee Dee Mental Health Center
Pennsylvania Society for the Advancement of the Deaf
Personal Communications
Self Help for Hard of Hearing
Southwestern Bell Telephone Company

Sprint Corporation
Telecommunications for the Deaf
Texas Advisory Commission
Travis County Department of Human Services
United States Telephone Association
US West
Valeria Hamilla
Wisconsin Telecommunications

Reply Comments

AT&T
BellSouth Corporation
David J. Nelson
Georgia Public Service Company
League for the Hard of Hearing
National Association of the Deaf
Southwestern Bell Telephone

Ex Parte Comments

AT&T
American Public Communications Council
Bell Atlantic
Cellular Telecommunications Industry Association
Lucent Technologies Inc
Maryland Department of Budget & Management
National Exchange Carrier Association, Inc.
Pennsylvania Public Utility Commission
Sprint Corporation
Self Help for Hard of Hearing People, Inc.
Telecommunications for the Deaf, Inc.
Texas Advisory Commission on State Emergency Communications
Verizon Communications

NEWS

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This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC. 515 F 2d 385 (D.C. Cir. 1974).

FOR IMMEDIATE RELEASE:
August 10, 2000

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FCC STRENGTHENS RULES DESIGNED TO GIVE COMPETITORS ACCESS TO INCUMBENT PHONE COMPANIES' NETWORKS

Washington, D.C. – Today, the Federal Communications Commission (Commission) clarified collocation rules that were implemented last year by adopting time frames for the implementation of collocation provisioning. In a collocation arrangement, a competitor leases space at an incumbent local exchange carrier's (LEC's) premises for its equipment. Collocation rules are intended to ensure that multiple, competing providers are able to offer voice and advanced data telecommunications services, which, in turn, should bring more choices, lower prices, and increased innovation to consumers.

The *Order on Reconsideration* (*Order*) adopted today takes immediate steps to ensure that competitors can obtain collocation in a timely and efficient manner. In particular, the *Order* requires an incumbent LEC to provide physical collocation, including cageless collocation, no later than 90 calendar days after receiving a collocation request (except where a state sets its own standard or a requesting carrier and an incumbent LEC agree to an alternate standard). The *Order* also requires an incumbent LEC to allow a competing LEC to construct adjacent structures on land owned or controlled by the incumbent LEC to the extent physical collocation space is exhausted in a particular incumbent LEC structure.

Additionally, the Commission adopted a *Second Further Notice of Proposed Rulemaking* (*Second Further Notice*) in CC Docket No. 98-147 that responds to the D.C. Circuit's recent opinion in *GTE v. FCC*, which affirmed the Commission's collocation rules issued last year in several important respects, but vacated and remanded for further consideration certain aspects of those rules. The *Second Further Notice* invites comment on the remanded issues as well as on other collocation-related issues important to local competition. These include the meaning of "necessary" and "physical collocation," issues relating to what equipment an incumbent must allow a competitive LEC to physically collocate, and how physical collocation space should be assigned. The *Second Further Notice* also asks for comment on issues relating to collocation at remote incumbent LEC premises.

The Commission also adopted a *Fifth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98, inviting comment on whether the Commission's local competition rules should be modified or clarified, particularly those applying to the transport, loop, and subloop elements, in light of the deployment of new network architectures by

incumbent LECs.

Action by the Commission August 9, 2000, by *Order on Reconsideration and Second Further Notice of Proposed Rulemaking* in CC Docket No. 98-147 and *Fifth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98 (FCC 00-297). Chairman Kennard and Commissioners Ness, Furchtgott-Roth, Powell, and Tristani.

-FCC-

Common Carrier Bureau Contacts: William Kehoe or Julie Patterson: (202) 418-1580